

**UNCLASSIFIED**

DEPOT TRAFFIC ANALYSIS, FISCAL YEAR 86(U) DEFENSE  
LOGISTICS AGENCY ALEXANDRIA VA OPERATIONS RESEARCH AND  
ECONOMIC ANALYSIS OFFICE J FANELLI ET AL. DEC 87  
F/G 15/5

1/1

ML



MICROCOPY RESOLUTION TEST CHART  
NBS 1963-A

DTIC FILE COPY

2

# DEPOT TRAFFIC ANALYSIS FY 86



DTIC  
ELECTE  
MAY 17 1988  
S D

Operations Research and Economic  
Analysis Office

DISTRIBUTION STATEMENT A

Approved for public release/  
Distribution Unlimited

DECEMBER 1987

88 5 16 1 31

ADA195580

# REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT  Public Release; Unlimited Distribution		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION Operations Research and Economic Analysis Office		6b. OFFICE SYMBOL (If applicable) DLA-LO	7a. NAME OF MONITORING ORGANIZATION  Defense Logistics Agency (DLA-L)		
6c. ADDRESS (City, State, and ZIP Code)  Cameron Station Alexandria, VA 22304-6100			7b. ADDRESS (City, State, and ZIP Code)  Cameron Station Alexandria, VA 22304-6100		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable) DLA-L	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)  Cameron Station Alexandria, VA 22304-6100			10. SOURCE OF FUNDING NUMBERS		
			PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.
			WORK UNIT ACCESSION NO.		
11. TITLE (Include Security Classification)  (U) Depot Traffic Analysis FY 86					
12. PERSONAL AUTHOR(S) Mr. Joseph Fanelli and Lt Col James J. Sova					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM Jul 87 TO Dec 87		14. DATE OF REPORT (Year, Month, Day) December 1987	
				15. PAGE COUNT 37	
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP			
			Transportation Costs, Depot Traffic		
19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
<p>This report documents an analysis of DLA Depot Traffic for FY 86. Summary statistics for FY 86 are compared with similar data for FY 84 and FY 85 to determine the effect that the Guaranteed Traffic Program has had on transportation cost reductions. The data are compared based on both current dollar value and FY 84 dollars.</p> <p>For the purpose of this study, FY 84 data were considered as the baseline. Significant cost reductions from FY 84 to both FY 85 and FY 86 were noted. In terms of FY 84 dollars, there was an approximated \$20 million cost reduction for FY 86. These savings are attributed to the lower rates negotiated under the Guaranteed Traffic Program and the associated increase in average weight per shipment and decrease in the total number of shipments.</p> <p style="text-align: right;">(continued)</p>					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL Col Eugene Round, USAF			22b. TELEPHONE (Include Area Code) (202) 274-6715		22c. OFFICE SYMBOL DLA-LO

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

19. (con't)

Cost reductions achieved under the Guaranteed Traffic Program have significantly contributed to DLA's overall traffic management effectiveness. This program should be continued and expanded where possible. Efforts for greater consolidation should continue to be stressed. In addition, the study recommends that small air parcel rates be examined for possible additional cost reductions.



Accession For	
NTIS	CRA&I
DTIC	TAB
Unannounced	
Justification	
By	
Distribution of	
Availability Codes	
Dist	Avail and/or Special
A-1	

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

Depot Traffic Analysis FY 86

December 1987

Mr. Joseph Fanelli  
Lt Col James J. Sova  
Operations Research and Economic Analysis Office  
Headquarters, Defense Logistics Agency  
Cameron Station, Alexandria, Virginia 22304-6100



DEFENSE LOGISTICS AGENCY  
HEADQUARTERS  
CAMERON STATION  
ALEXANDRIA, VIRGINIA 22304-6100

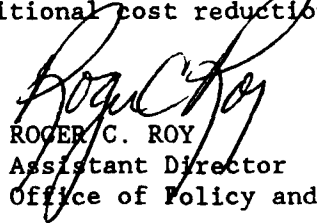
DLA-LO  
12 April 1988

FOREWORD

This report documents an analysis of DLA Depot Traffic for FY 86. Summary statistics for FY 86 are compared with similar data for FY 84 and FY 85 to determine the effect that the Guaranteed Traffic Program has had on transportation cost reductions. The data are compared based on both current dollar value and FY 84 dollars.

For the purpose of this study, FY 84 data were considered as the base line. Significant cost reductions from FY 84 to both FY 85 and FY 86 were noted. In terms of FY 84 dollars, there was an approximated \$20 million cost reduction for FY 86. These savings are attributable to the lower rates negotiated under the Guaranteed Traffic Program and the associated increase in average weight per shipment and decrease in the total number of shipments.

Cost reductions achieved under the Guaranteed Traffic Program have significantly contributed to DLA's overall traffic management effectiveness. This program should be continued and expanded where possible. Efforts for greater consolidation should continue to be stressed. In addition, the study recommends that small air parcel rates be examined for possible additional cost reductions.

  
ROGER C. ROY  
Assistant Director  
Office of Policy and Plans

## CONTENTS

<u>Title</u>	<u>Page</u>
Foreword.....	iii
Table of Contents.....	v
List of Tables.....	vii
List of Figures.....	ix
I. Introduction.....	1
A. Background.....	1
B. Objectives.....	1
C. Scope.....	1
II. Conclusions and Recommendations.....	1
III. Methodology.....	2
IV. Analysis.....	2
A. DLA Shipments' FY85/FY86 GBL Traffic.....	3
B. Defense Depots' Traffic FY 85/FY86.....	4
1. Less-Than-Truckload.....	5
2. Truckload.....	5
3. Small Parcel Air (SPA).....	10
4. Air Freight Traffic.....	10
C. DLA Small Dollar Shipment Comparison.....	15
D. Defense Depots' Small Dollar Shipment Comparison.....	15
1. Less-Than-Truckload.....	15
2. Small Parcel Air.....	16
3. Air Freight Traffic.....	17
Appendix A: Summary of DLA Shipments' GBL Traffic by Mode.....	A-2
Appendix B: Summary of Defense Depots' Traffic by Mode.....	B-2
Appendix C: Summary of DLA Shipments' GBL Traffic by Mode.....	C-2
Appendix D: Summary of Defense Depots Traffic by Mode.....	D-2



LIST OF TABLES

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Average Rate Comparison by Mode.....	4
2	Average LTL Rate Comparison.....	16
3	Average SPA Rate Comparison.....	17

## LIST OF FIGURES

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Less-Than-Truckload: Shipment Totals and Weight.....	6
2	Less-Than-Truckload: Charges and Average Rate.....	7
3	Truckload: Shipment Totals and Weight.....	8
4	Truckload: Charges and Average Rate.....	9
5	Small Parcel Air: Shipment Totals and Weight.....	11
6	Small Parcel Air: Charges and Average Rate.....	12
7	Air Freight: Shipment Totals and Weight.....	13
8	Air Freight: Charges and Average Rate.....	14

## I. INTRODUCTION

A. Background. The detailed classification and recording of transportation costs and related data are an integral part of the management and distribution of material throughout the Defense Logistics Agency (DLA) system. The ability to identify costs by shipping activities/defense depots and mode of shipment provides management with the information needed to monitor and, if necessary, adjust procurement, distribution, or transportation policies.

B. Objectives. In December of 1984, the DLA Headquarters Transportation Division of the Directorate of Supply Operations (DLA-OT) requested that the DLA Operations Research and Economic Analysis Office (DLA-LO) perform an analysis of government bill of lading (GBL) traffic by volume and cost from all depots. The purpose of that study was to evaluate shipping trends for the periods of Fiscal Years (FY) 1981 - 1984. A study was done in September 1986 to provide information for FY 85. A request was made again to provide similar information for FY 86.

### C. Scope

Shipping data for FY 84, FY 85 and FY 86 are aggregated for shipments from the Defense Depots Richmond (DDRV), Mechanicsburg (DDMP), Columbus (DDCO), Memphis (DDMT), Ogden (DDOU), and Tracy (DDTC). The methods of transportation include motor, rail and air. Transportation modes include less-than-truckload (LTL) motor shipments under 10,000 pounds; truckload (TL) motor shipments, 10,000 pounds or more; carload (CL) rail shipments of 5,000 or more pounds (O/T piggyback); trailer-on-flatcar (piggyback or TOFC); small parcel air (SPA) shipments weighing less than 100 pounds; and air freight (AFT) shipments of 100 pounds or more. Rail shipments less than 5,000 pounds are considered as less-than-truckload (LTL).

The shipping data for FY 86 were also analyzed on the basis of shipment charges including and excluding charges less than \$50.00. The same aggregation as shown above was made for each defense depot and mode of transportation.

## II. CONCLUSIONS AND RECOMMENDATIONS

Freight consolidation and the Guaranteed Traffic Program have stabilized any increase in transportation costs and reduced costs for some shipping modes. Rail traffic increased during FY 85 but the number of shipments and weight fell in FY 86; however the high average rate per 100 pounds can be misleading since the distance the shipment traveled was not considered in the analysis. The continued use of some rail carriage may be justified after comparison of costs among other modes of transportation.

For shipments under \$50.00 alternative modes of transportation or other methods of billing should be utilized since the administrative cost of processing government bills of lading far exceeds the dollars expended for transportation. Freight shipments less than 200 pounds moving on GBLs indicate that such shipments might have been consolidated with others to the same location or as an alternative, the use of a modified version of the Enhanced DLA Distribution System should be considered. The use of pool truck or air freight container

distribution may significantly reduce the cost for transporting small parcels. On the other hand, the use of small parcel modes, i.e., United States Postal Service, United Parcel Service, etc., for which commercial paper is used, should be considered for those shipments of motor traffic under \$50.00.

As an additional observation, the use of unaudited GBLs for small dollar shipments induces the potential fraud and waste of transportation dollars, which overcharges are not recouped by the Finance Center.

Further investigation of the average SPA rates should be studied. In addition, the average rate of rail shipments appear to be out of range when compared with truckload or piggyback shipments. These rates in cost are questionable and need further review.

### III. METHODOLOGY

Data were obtained from the Freight Information System (FINS) for the periods of FY 84, FY 85 and FY 86. The information was aggregated by modes and defense depots. A preliminary analysis identified outliers which were not included in the final aggregation. Such outliers included shipments in excess of one million pounds or freight charges in excess of \$9,000.

Further outliers, which might have skewed average rates per 100 pounds (CWT), included rail shipments of less than 5,000 pounds. These shipments were considered as less-than-truckload.

An additional distortion are shipments under 200 pounds. The Guaranteed Traffic Program established the minimum charge on the basis of 200 pounds or approximately \$50.00. For the purpose of the study, when developing the average rate per 100 pounds (CWT), the analysis is made on the basis of the actual weight of the shipment. The preponderance of shipments weighing less than 200 pounds should cost less than \$50.00. Therefore, the study also includes an analysis of small dollar shipments for categories which includes and excludes charges less than \$50.00.

Charges for FY 85 and FY 86 were converted to FY 84 dollars using deflation factors for transportation of government shipments from the Government Division, Bureau of Economic Analysis, U.S. Department of Commerce. This conversion was necessary so that a true comparison of FY 84, FY 85 and FY 86 charges could be done. Based on the deflation factors, an FY 84 transportation dollar was worth approximately 90.8 cents in FY 85 and 88.4 cents in FY 86.

A comparative analysis of FY 84, FY 85 and FY 86 was made for all shipments, including those shipments with charges under \$50.00. The study shows the relationship of transportation consolidation and average rate per 100 pounds to the total weight shipped via each mode.

IV. ANALYSIS. The analysis is provided under four sections which are (i) DLA-wide GBL Traffic by Mode; (ii) Defense Depot Traffic by Mode; (iii) Small Dollar Shipment Comparison - DLA-wide; and (iv) Small Dollar Shipment Comparison - Defense Depot. The study includes FY 84, FY 85 and FY 86 Freight Information System data. Although tables and graphs are provided which do show actual

charges in FY 85 and FY 86 dollars, the majority of the detailed analysis focuses on the charges which were converted to FY 84 dollars. Exceptions are clearly noted. A comparison of small dollar shipments for FY 86 is also included in the study for DLA-wide and defense depot shipments to separate the impact of less than \$50.00 shipments.

A. DLA Shipments FY 84/FY 85/FY 86 GBL Traffic

The Summary of DLA Shipments GBL Traffic by Mode for Fiscal Years 1984, 1985 and 1986 in Fiscal Year 1984 Dollars (Appendix A-1) reflects that the number of shipments (GBLs) has decreased by 30.1 percent from 603.1 thousand for FY 84 to 421.7 thousand in FY 86 (a decrease of 21.6 percent between FY 84 and FY 85 and a decrease of 10.8 percent between FY 85 and FY 86). There was some fluctuation in total weight shipped over these fiscal years, but the significant factor was the 41.0 percent increase in average weight shipped, from 1682.3 pounds in FY 84 to 2372.5 pounds in FY 86 (an increase of 22.9 percent between FY 84 and FY 85 and an increase of 14.8 percent between FY 85 and FY 86). Considering the reduction in shipments and the corresponding increase in average weight shipped, it is evident that greater consolidation of shipments was achieved in both FY 85 and FY 86. The number of LTL shipments showed a reduction from 455.9 to 363.5 to 354.4 thousand with a corresponding total weight reduction from 314.7 to 270.2 to 267.4 million pounds. The average weight for LTL increased by 64 pounds or 9.3 percent between FY 84 and FY 86. Although rail O/T piggyback shipments increased somewhat from FY 84 to FY 85, they decreased significantly from 1,233 loadings in FY 85 to 469 in FY 86 with a decrease in weight from 53 to 18 million pounds. Both the number of small parcel air shipments and the total weight of small parcel air shipments were appreciably reduced from 98.3 thousand shipments weighing 2.1 million pounds in FY 84 to 66.2 thousand shipments weighing 1.4 million pounds in FY 85 to 23.6 thousand shipments weighing 0.7 million pounds in FY 86, an overall reduction in the number of shipments of 76 percent and a reduction in weight of 65 percent between FY 84 and FY 86. Shipments by piggyback were reduced, from 180 to 56 to 39, an overall reduction of 78 percent. And, air freight shipments were decreased by 7 thousand between FY 84 and FY 86. Truckload was the only mode that actually increased in the number of shipments and even these increased in average weight. The number of truckload shipments increased by 386 shipments in FY 85 and 2104 shipments in FY 86 while the average weight of truckload shipments decreased by 306 pounds in FY 85 but increased by 675 pounds in FY 86.

The average cost in FY 84 dollars of all shipments reflects a decrease of approximately \$3 in FY 85 and an increase of approximately \$8 in FY 86, a net increase of \$5, up from \$110 to \$115. The overall rate per 100 pounds shows a decrease of \$1.37 per CWT from \$6.57 in FY 84 to \$5.20 in FY 85 or 20.9 percent, whereas, the overall rate per 100 pounds further decreased by 35 cents per CWT from \$5.20 in FY 85 to \$4.85 in FY 86 or 6.7 percent. The reduction from FY 84 to FY 86 was \$1.72 or 26.2 percent. The total weight showed only a slight decrease in FY 85 of 37.4 million pounds and a slight increase of 23.1 million pounds in FY 86. These shipping weights coupled with the lower shipping rates reflect the total transportation charge reductions in FY 85 of approximately \$16 million in FY 84 dollars (approximately \$11 million in FY 85 dollars) and in FY 86 another \$2 million in FY 84 dollars (approximately \$1 million in FY 86 dollars).

Table 1 displays the average rate comparison for the fiscal years of 1984, 1985 and 1986. The percentage change reflects an average of 20.9 percent reduction from FY 84 to FY 85 and a reduction of 6.7 percent from FY 85 to FY 86. This reduction is attributed to the Guaranteed Traffic Program. Although the average rate system-wide of all modes reflects a significant reduction, rail traffic (other than piggyback) and air shipment traffic had increased from the previous years.

Appendix A-2 depicts the same data as in Appendix A-1 but is in terms of current dollars. This appendix is provided to the reader for general information. The average cost per 100 pounds has declined for FY 86 for motor and piggyback traffic. This trend reflects increased freight consolidation.

Table 1  
AVERAGE RATE COMPARISON BY MODE  
(IN DOLLARS PER 100 POUNDS)

<u>Modes</u>		<u>FY 84</u>	<u>FY 85</u>	<u>FY 86</u>	<u>Percentage Change</u> <u>FY 85      FY 86</u>	
Motor	Less-than-truckload	12.27	10.86	10.21	-11.5%	- 5.9%
Motor	Truckload	2.81	2.51	2.40	-10.7%	- 4.4%
Rail	Piggyback	2.74	2.55	2.40	- 6.8%	- 5.9%
Rail	Other than Piggyback	1.57	1.60	3.07	+ 1.9%	+91.9%
Air	Small Parcels	184.19	118.00	134.86	-39.5%	+14.3%
Air	Freight (100 lbs or more)	63.11	44.66	48.35	-29.2%	+ 8.3%
ALL MODES		6.57	5.20	4.85	-20.9%	- 6.7%

Note: All rates are in FY 84 dollars.

B. Defense Depots Traffic FY 84/FY 85/FY 86. The Summary of Depot Traffic by Mode for Fiscal Years 1984, 1985 and 1986 (Appendix B) provides detailed information for each depot by mode category. These charts reflect the statistics for each mode by the number of shipments (GBLs), total weight shipped, average shipment weight, total charges expended for each mode, average cost or charges per GBL, and average rate per 100 pounds (CWT). Appendix B-1

provides a chart which shows FY 85 and FY 86 dollars converted to FY 84 dollars for the purpose of comparison, and Appendix B-2 provides a chart of actual dollars spent in FY 85 and FY 86.

#### 1. Less-Than-Truckload

Figure 1 depicts a general trend among the depots to decrease the number of LTL GBLs from FY 84 through FY 86. The only depot to show an increase was DDRV with an overall increase of 10.9 thousand shipments. The increase in the number of LTL shipments can be attributed to an increase in the number of customers served by DDRV or the lack of maximizing freight consolidation. For all three years, DDMT shipped the highest LTL tonnage with DDCO shipping the least. The LTL average shipment weight increased for most depots. This increase in average shipment weight reflects greater freight consolidation.

Figure 2 reflects that DDMT consistently expended the highest number of dollars in LTL charges and DDCO the least. Charts on the left are in constant FY 84 dollars and charts on the right are in "then year" or actual dollars spent during the fiscal years. The lowest average cost per shipment was DDMP and DDCO. The highest average cost continues at DDOU for FY 84, FY 85 and FY 86. Although all depots except DDMP and DDCO show an increased average transportation cost per shipment in FY 85 and FY 86, these costs have actually gone down. When the charges were converted to FY 84 dollars, it showed that the costs for all depots except DDTC decreased. The mean rate per 100 pounds depicts a reduction across the board for all depots except DDRV when viewed in terms of constant FY 84 dollars.

#### 2. Truckload

A review of TL GBL count reflects a slight upward trend in the overall number of GBLs issued over the three fiscal years. Figure 3 shows a small increase in truckload shipments for DDRV and DDCO over the three year period while DDMT had a drop in FY 85 and a big increase in FY 86.

The average truckload shipment weight for all depots marginally dropped by approximately 300 pounds from FY 84 to FY 85, but increased by approximately 675 pounds from FY 85 to FY 86, whereas, DDRV and DDCO average weight shipped rose in FY 85 and again in FY 86, DDOU rose in FY 85 but dropped slightly in FY 86. The average weight per shipment rose all three years for DDRV, DDCO, and DDOU which indicates that consolidation works; however, DDMP and DDMT declined in FY 85 but increased in FY 86 above FY 84. DDTC data show that the average truckload shipment weight is on a steady decline from FY 84.

Figure 4 shows that the total TL charges track closely with the number of shipments in Figure 3. The charts on the left show the changes over the three fiscal years in terms of constant FY 84 dollars. For all depots, the average truckload charge dropped over the three year period with some fluctuation in FY 85 for both DDRV and DDMP. The average truckload rate per 100 pounds also decreased for all depots over the three years, consistently for all depots except DDRV which had a slight upturn in FY 85 and DDMP with an upturn in FY 86. For general information, the charts on the right reflect the trends over the same period in terms of current dollars.

Figure 1

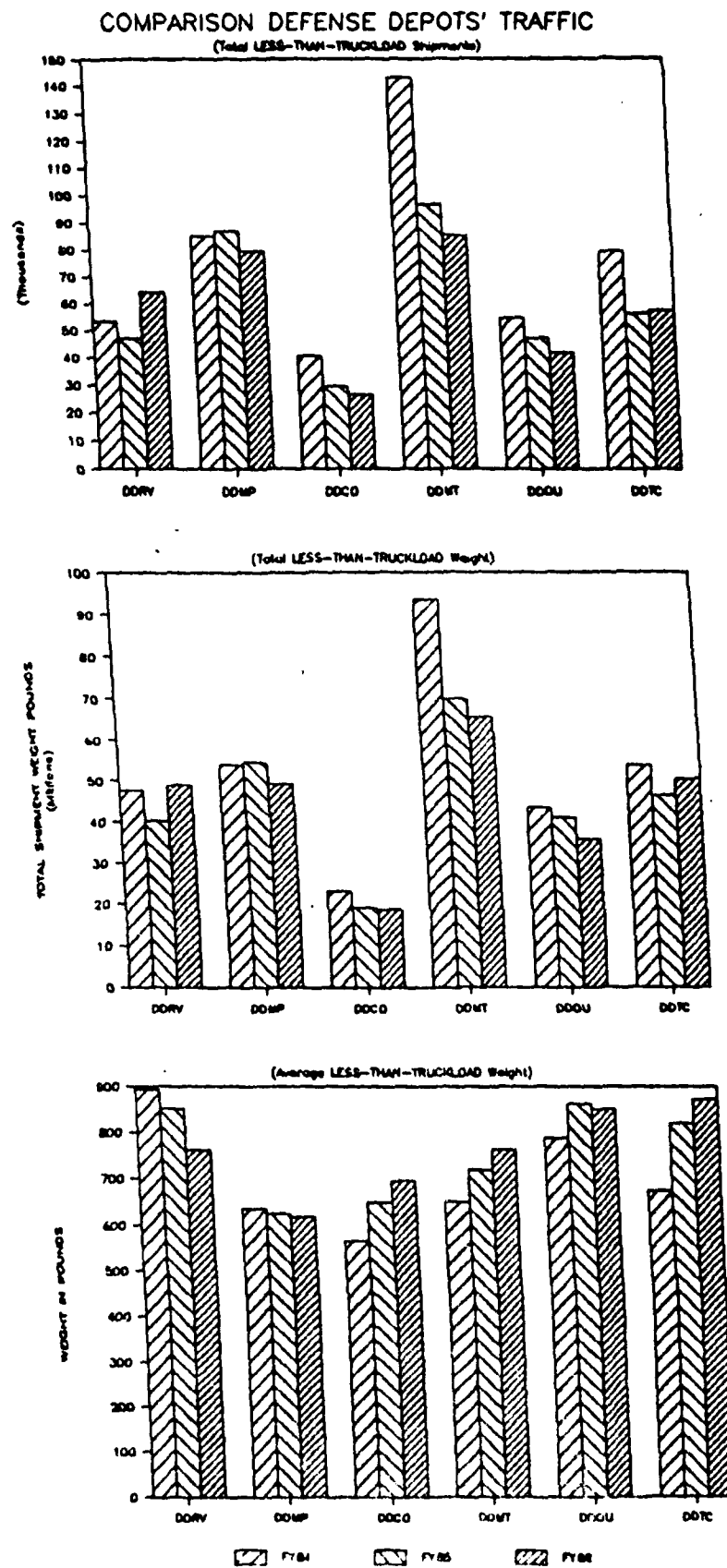




Figure 2

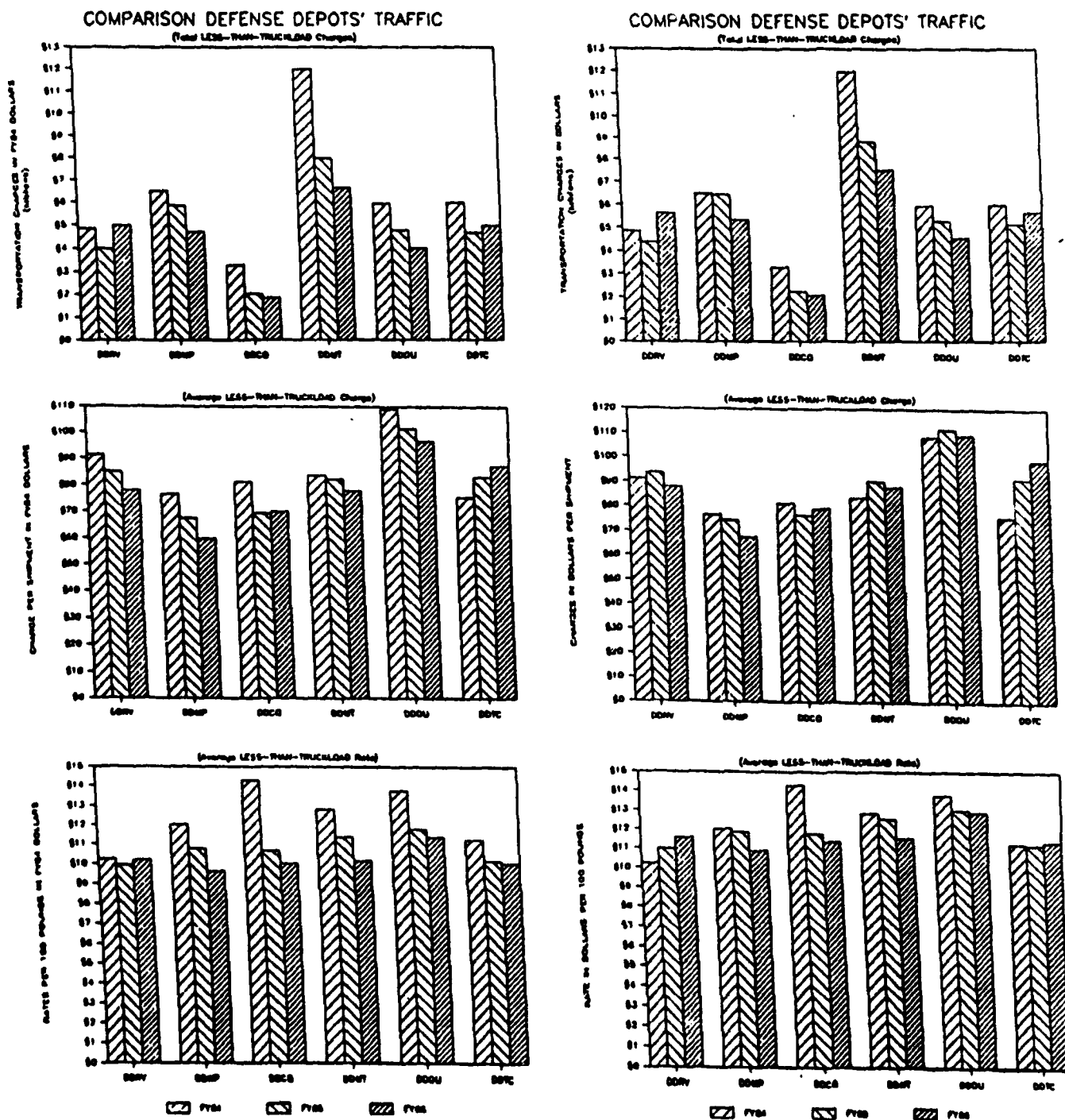


Figure 3

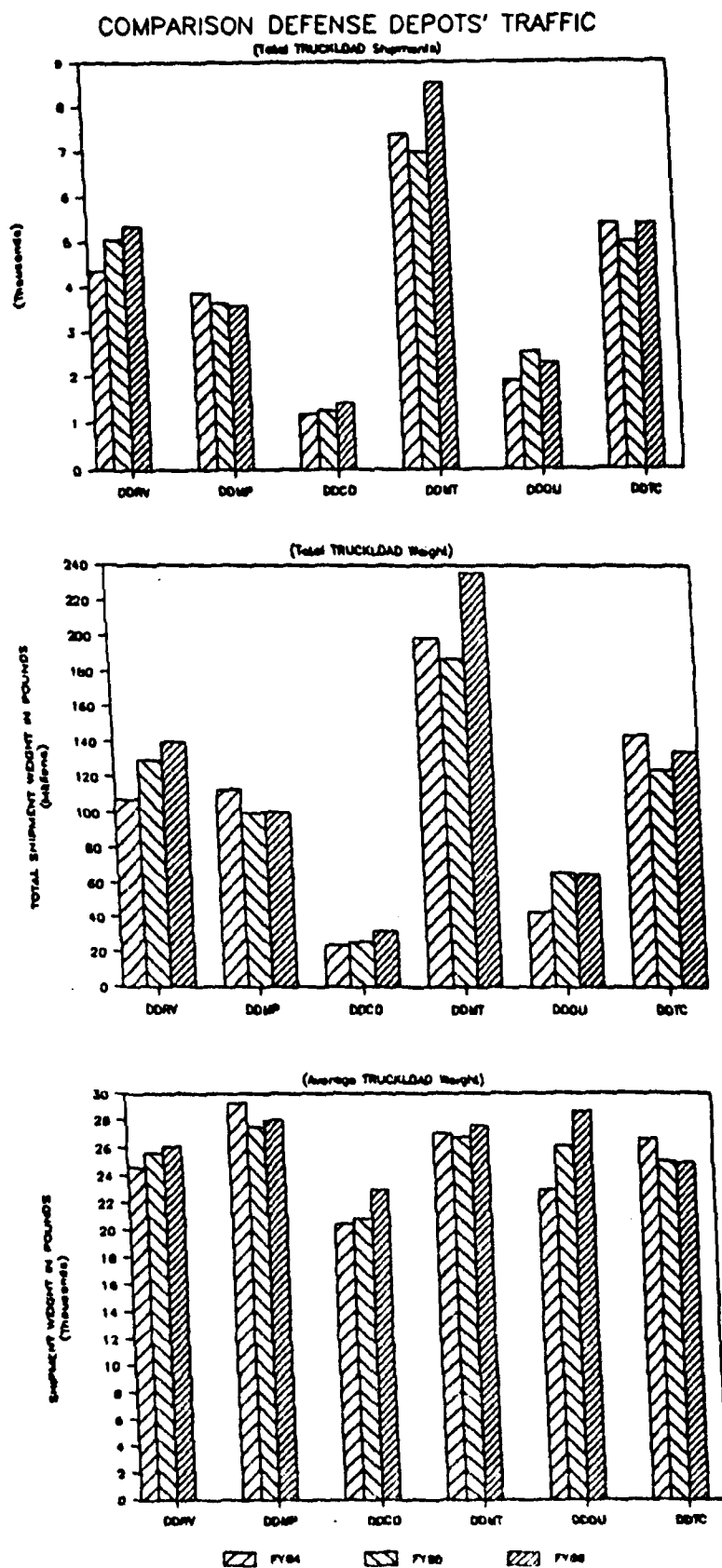
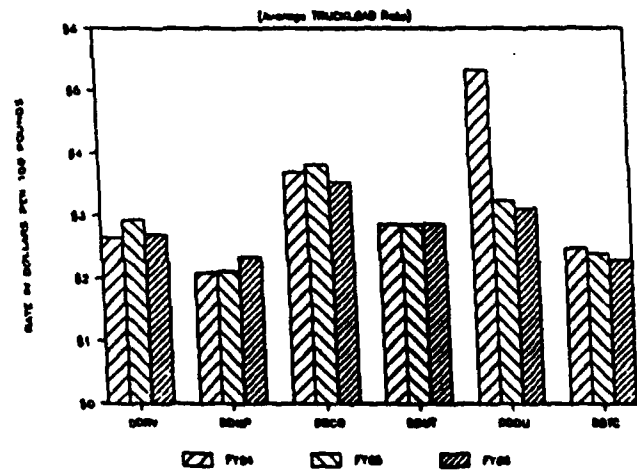
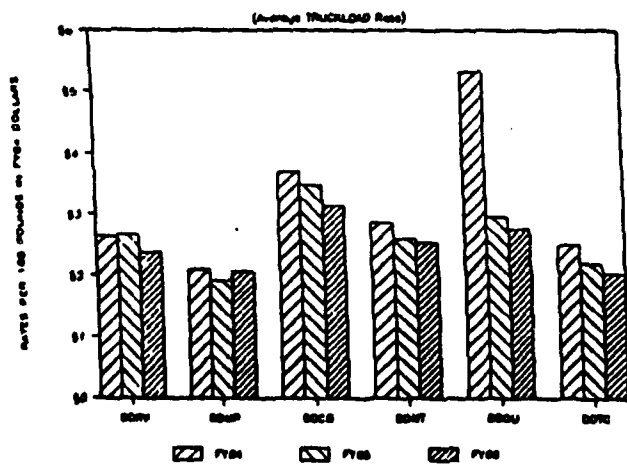
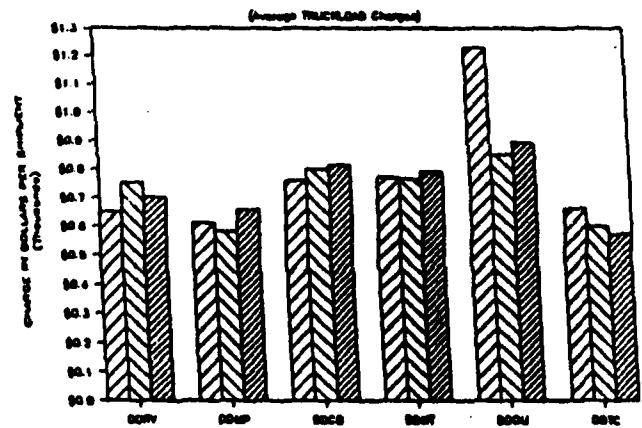
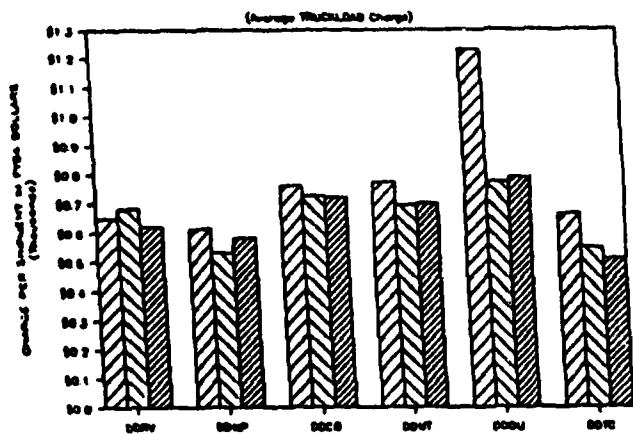
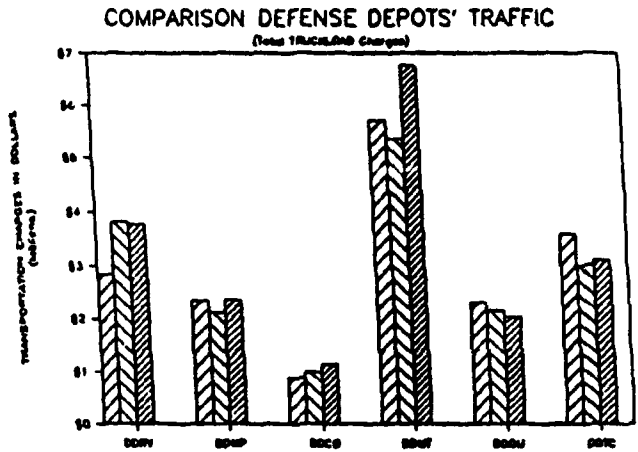
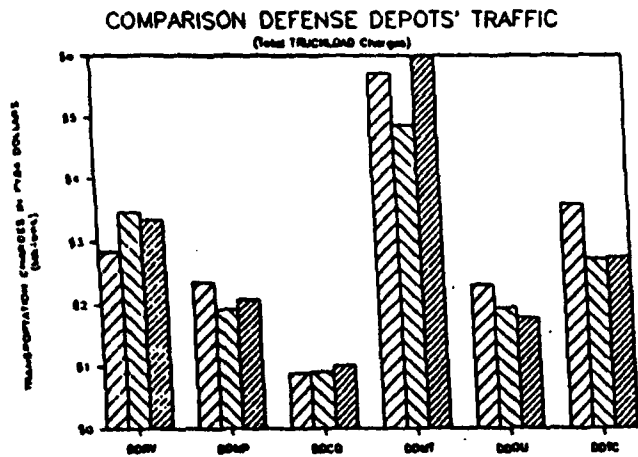


Figure 4



### 3. Small Parcel Air

The use of commercial paper for SPA is reflected by the decrease in the number of GBLs utilized during FY 86, down from FY 85 at 66,211 to 23,558 or 64.4 percent. This downward trend from FY 84 resulted in a reduction of 74,682 GBLs. Figure 5 depicts minimal use of GBLs for SPA shipments by DDRV, DDMP and DDTC. The largest decrease was attributed to DDTC.

DDOU shipped the most weight in FY 86; however, the tonnage was down approximately 56 thousand pounds. DDMT's tonnage was next highest but down by 55 thousand pounds. DDMP and DDTC show the greatest reduction of weight down 96 percent and 93 percent, respectively. A substantial increase of average weight per shipment is noted at DDCO up from 25 to 50 pounds. DDRV had the next highest average weight, with a reduction of approximately 8 pounds from 46.6 to 38.7 pounds.

Figure 6 displays cost comparisons among the defense depots and constant FY 84 dollar comparisons. Small air parcel shipment GBL costs declined from \$3.8 million (FY 84) to \$1 million (FY 86). This is an indication that an increased use of commercial bills of lading are substituted for GBLs or the services' requirements for high priority shipments have declined for the same period. Both DDMP and DDTC show appreciable reduction of SPA transportation dollars, whereas, DDMT costs substantially increased from \$256 thousand in FY 85 to \$382 thousand in FY 86. DDRV consistently expends the least number of dollars for SPA shipments on GBLs; FY 86 expenditure dropped from \$118,767 (FY 84) to \$9,250. The average cost per shipment from DDOU and DDTC is the lowest systemwide; however, the average cost has increased from both FY 84 and FY 85.

The average rate per cwt DLA-wide had increased 87% from FY 85 to FY 86. The mean rate per 100 pounds has significantly increased at all depots except DDCO and DDTC. The widest margin of increase is noted at DDMP where the rate in terms of current dollars has increased from FY 85 at \$115.73 to FY 86 at \$619.05. This is an indication of diverting SPA parcels to air freight forwarders whose charges are subject to a minimum of 100 pounds per shipment or subject to the density rule. In constant FY 84 dollars this reflects a 420 percent increase. DDMP drastically reduced the number of shipments and the mean weight during this period. The high mean rate for DDRV is also an indication of SPA shipment diversion to the air freight forwarders. With the reduction of shipments from DDTC, it appears that SPA diversions are also being made.

### 4. Air Freight Traffic

Figure 7 shows that air freight shipments slightly declined systemwide. The biggest reduction was made by DDMP down from 3610 to 1144 GBLs. DDTC statistics reflect a constant reduction from FY 84. The total weight shipped follows the same trend as the number of GBLs issued by each depot. After a slight increase of the average weight of air freight shipments from FY 84 to FY 85, a remarkable decrease is noted for shipments during FY 86. DDCO's average weight per shipment shows the greatest reduction for FY 86. The reduction of GBLs for air freight shipments reflect that the challenge program is viable.

Although the transportation dollars (Figure 8) expended for air freight remained

Figure 5

# COMPARISON DEFENSE DEPOTS' TRAFFIC

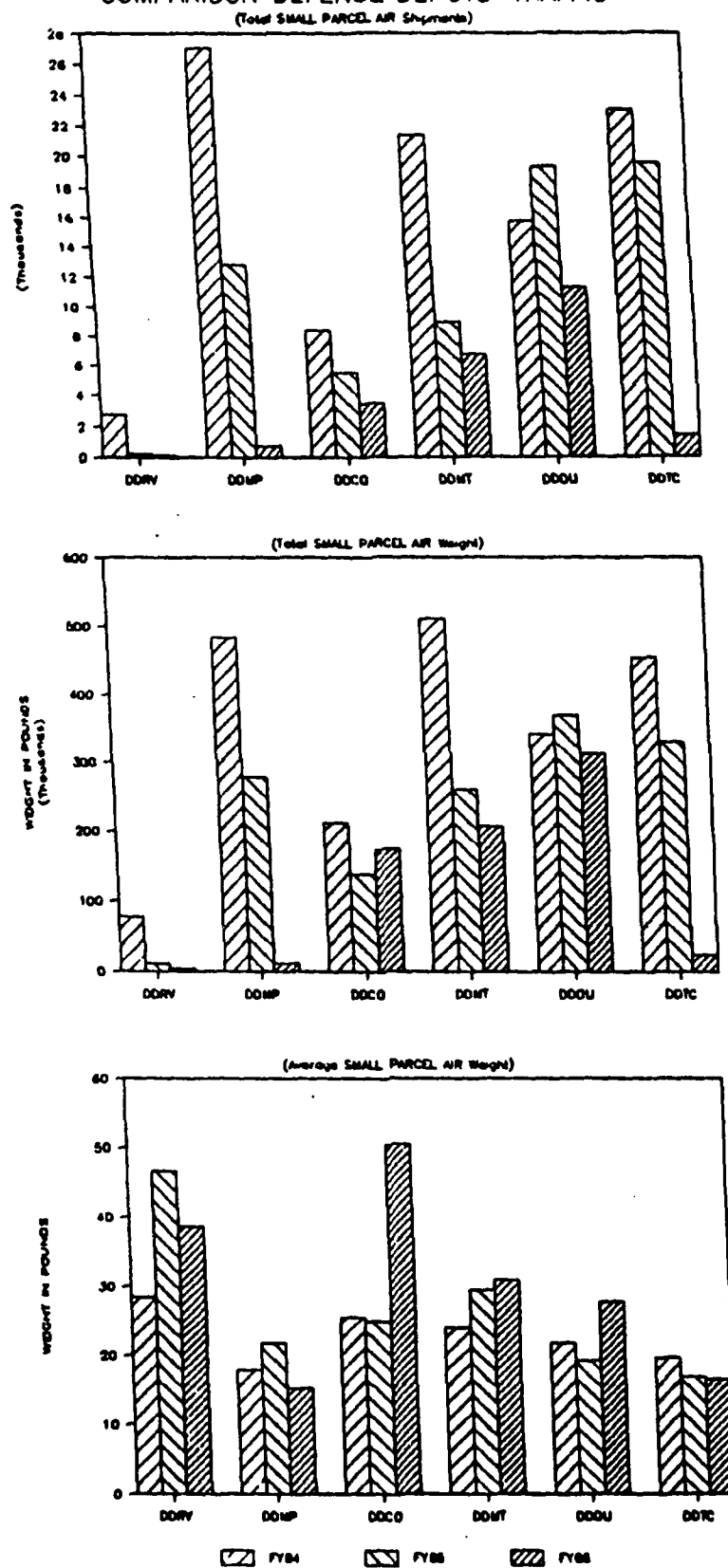


Figure 6

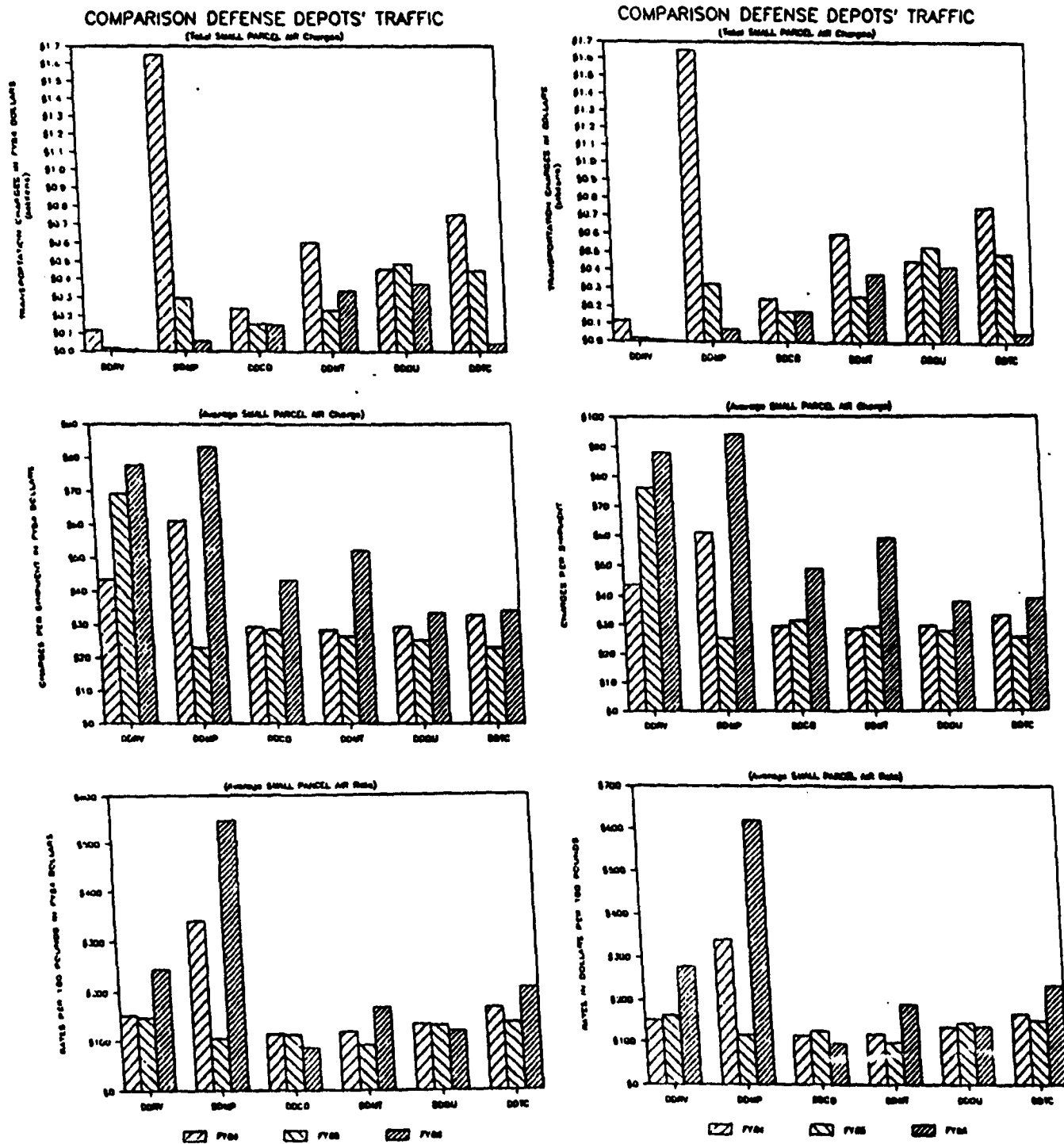


Figure 7

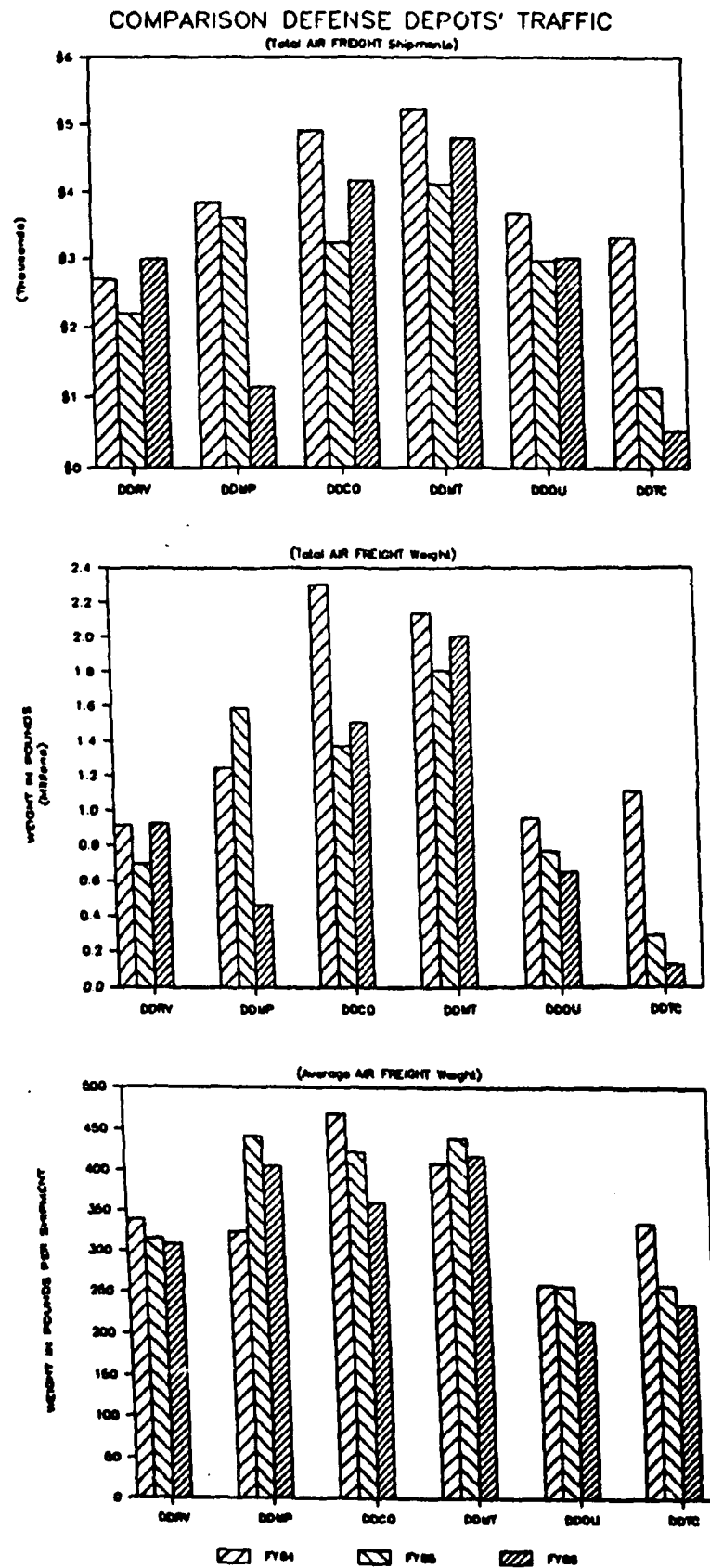
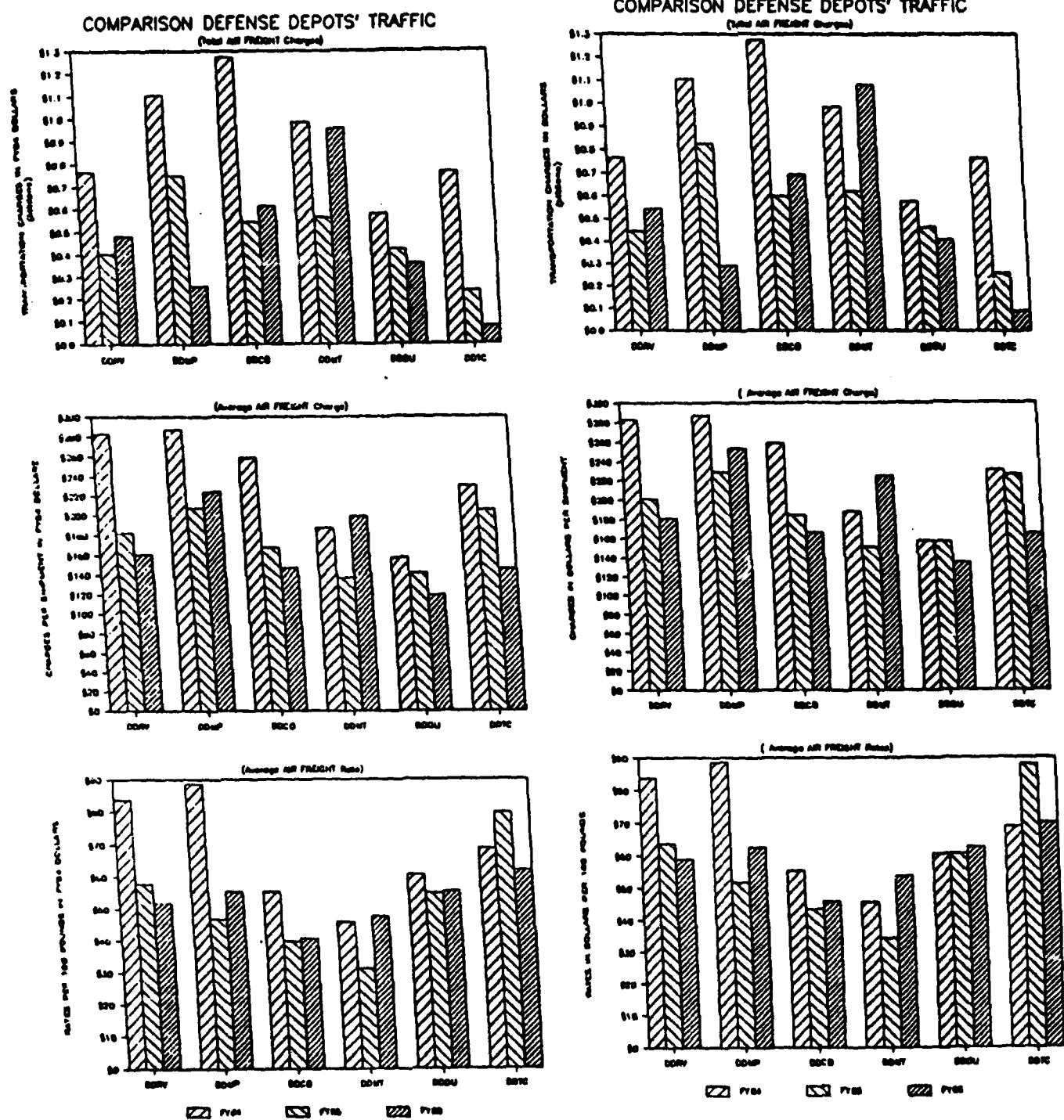


Figure 8





about the same as last year, DDMT stands out with expenditures in excess of \$1 million in terms of current dollars for FY 86 which exceeded FY 85 by approximately \$450 thousand. DDMP and DDTC costs are down over 65 percent from the previous year. While the mean rate across all depots reflect a slight decline from \$63 (FY 84) to \$59 (FY 86), a 20% increase is noted from FY 85 to FY 86. DDTC with the least number of shipments has the highest average rate which indicates that most shipments move greater distances than those shipments from other depots. Although this rate is the highest for FY 86, it is significantly lower than FY 85. On the other hand, DDCO has the lowest average rate for FY 86 but ranks the second highest shipping depot of air freight shipments. This is an indication of a reverse trend for DDTC, and therefore it can be assumed that DDCO shipments travel less distance than DDTC.

#### C. DLA Small Dollar Shipment Comparison

The Summary of DLA Shipments' GBL Traffic for Fiscal Year 1986 (Appendix C) provides information for all shipments including and excluding shipment charges less than \$50.00. The low dollar shipment charges (under \$50.00) are included in the statistics generally to reflect shipments which may have been subject to carrier minimum charges.

The shipment summary shows that 421,661 shipments (includes under \$50.00) and 224,985 shipments (excludes under \$50.00) were made during FY 86 (tonnage of 1,000.4 and 969.4 thousand pounds, and total charges \$54.9 and \$48.2 million, respectively). The data quantify an overall average rate increase of 51 cents per CWT, \$4.98 to \$5.49 when including all shipments under \$50.00. Slightly less than 50 percent of the shipments that were made on GBLs were less than \$50.00. Shipments less than \$50.00 required approximately 200 thousand government bills of lading (LTL shipments 182,000; SPA shipments 14,000; and air freight 1,000). Only 7 GBLs were used for truckload shipments. It is likely that truckload shipments under \$50.00 were used for local drayage for which commercial paper could have been used.

D. Defense Depots' Small Dollar Shipment Comparison. The Comparison of Individual Depots' GBL Traffic for Fiscal Year 1986 (Appendix D) depicts data for shipments over \$50.00 and including under \$50.00. The information is shown by defense depot for each category of motor and air shipments.

##### 1. Less-Than-Truckload

The comparison of depots shows that DDMT shipped the highest number of LTL shipments and LTL tonnage for both shipment charges under \$50.00 and over \$50.00. Approximately 46,000 shipments were less than \$50.00. When including shipments under \$50.00, the average weight of a shipment declines from 1476 pounds to 765 pounds or approximately 50 percent. (This trend applies across all depots). Approximately \$2 million were expended by DDMT for low dollar shipments. DDMP ranks second for highest volume of shipments; shipped approximately 46,000 shipments under \$50.00 weighing 9 million pounds; expended \$1.4 million; and average weight declined to 619 pounds. DDOU and DDCO shipped the least number of LTL shipments under \$50.00 with 17 and 16 thousand, respectively; expended \$663 and \$539 thousand, respectively; and average weight of all shipments declined to 851 and 697 pounds, respectively.

Table 2 indicates the range of mean rates per CWT among the depots and the percentage increase when including low dollar shipments. Shipments under \$50.00 increased the mean rate per CWT from a high of \$1.56 at DDCO to a low of \$.40 at DDTC. This highlights the possible need of greater freight consolidation or use of alternative modes of transportation such as United Parcel Service or consider for the Enhanced DLA Distribution System. The mean average rate systemwide was \$11.60 per CWT for all shipments, whereas, the mean rate is \$10.38 per CWT for shipments excluding \$50.00 or a 10.5 percent reduction. The \$11.60 rate is the result of shipments which were assessed the minimum charge computed at 200 pounds per shipment. In those instances when maximum freight consolidation continues to require LTL shipments, pool truck shipments to consolidation/assembly and distribution could reduce the number of LTL shipments.

Table 2

AVERAGE LTL RATE COMPARISON

Depot	Exclude \$50.00	Include \$50.00	Percentage Change
DDRV	10.15	11.56	+ 13.9
DDMP	9.76	10.91	+ 11.8
DDCO	9.80	11.36	+ 15.9
DDMT	10.05	11.53	+ 14.7
DDOU	11.58	12.88	+ 11.2
DDTC	10.94	11.35	+ 3.7
DLA-wide	10.38	11.60	+ 11.8

2. Small Parcel Air. The analysis implies that a high volume of shipments under \$50.00 were made on GBLs in lieu of commercial paper. The use of commercial paper with payment by the local finance office provides greater control for collection of overcharges and reduces the administrative cost for processing GBLs. Of the total of 23,558 shipments, only 9,606 (41 percent) were over \$50.00. The largest number of GBLs were generated at DDOU and the least at DDRV. DDOU generated 11.2 thousand GBLs for SPA of which three thousand were used for shipments exceeding \$50.00. DDMT was the next highest utilizing GBLs for SPA but 65 percent or 4323 shipments exceed \$50.00. DDRV, DDMP and DDTC use the least number of GBLs for SPA shipments.

The average cost for all SPA shipments is approximately \$61.00. When excluding those under \$50.00 the average cost increased to \$88 or a 44 percent increase.

The widest increase in the average cost is reflected at DDTC and DDOU. DDMP average cost is the highest for both shipments including and excluding the \$50.00 limitation. Table 3 depicts an overall minimal change in the average rate per 100 pounds for both types of shipments. An average SPA rate at DDMP over \$600.00 indicates that small parcels are being subject to a minimum charge or premium accessorial charges are assessed to these shipments. When including shipments under \$50.00 the average rate increases at DDRV, DDOU and DDTC. The greatest percentage change is reflected for DDCO, DDMT, and DDTC. The systemwide change is nominal.

Table 3

AVERAGE SPA RATE COMPARISON

	Exclude	Include	Percentage
Depot	\$50.00	\$50.00	Change
DDRV	218.27	227.50	+ 4.2
DDMP	622.24	619.05	- .5
DDCO	120.05	96.97	- 19.2
DDMT	225.06	190.48	- 15.4
DDOU	127.46	135.56	+ 6.4
DDTC	196.53	234.03	+ 19.1
DLA-wide	251.60	250.60	- .4

3. Air Freight Traffic. Appendix D-1 reflects that DDMT and DDCO ship the largest number of air freight shipments over 100 pounds. On the other hand, DDTC shipped the least number of air freight shipments. The highest shipping tonnages originated at DDMT for both categories. DDMT also expended the greatest transportation dollars. Table 4 reflects no appreciable difference in the mean rate for shipments in either category.

Table 4

## AVERAGE AIR FREIGHT RATE COMPARISON

	Excludes	Includes	Percentage
Depot	\$50.00	\$50.00	Change
DDRV	58.90	58.78	- .2
DDMP	63.82	62.74	- 1.7
DDCO	46.42	46.15	- .6
DDMT	54.21	53.82	- .8
DDOU	63.30	62.76	- .9
DDTC	70.88	70.14	- .1
DIA-wide	59.59	59.07	- .9

APPENDIX A

SUMMARY OF DLA SHIPMENTS CBL TRAFFIC BY MODE

SUMMARY OF OLA SHIPMENTS' GBL TRAFFIC BY MODE  
(Fiscal Years 1984, 1985, and 1986 in Fiscal Year 1984 Dollars)

SHIPPING MODE	NUMBER OF GBL'S OF GBL'S		NUMBER OF GBL'S OF GBL'S	TOTAL WEIGHT SHIPPED		TOTAL WEIGHT SHIPPED		TOTAL WEIGHT SHIPPED		AVG NET SHIPPED		TOTAL CHARGES		AVG COST PER GBL		AVG COST PER GBL		AVG RATE PER CWT		AVG RATE PER CWT		AVG RATE PER CWT	
	FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY84	FY85	FY84	FY85	FY84	FY85	FY84	FY85	FY84	FY85	FY84	FY85
POSTAL LTD	455,989	383,341	334,422	314,716,630	270,167,113	287,395,294	690.2	743.2	754.5	\$38,625,491	\$29,344,375	\$27,312,645	\$84.71	\$80.72	\$77.06	\$12.27	\$10.86	\$10.21	\$10.21	\$10.21	\$10.21	\$10.21	\$10.21
WATER FREIGHT	24,026	24,412	24,516	630,423,495	633,098,872	707,163,281	26,339.2	25,933.9	26,669.3	\$17,696,170	\$15,841,068	\$16,962,504	\$736.54	\$648.90	\$639.71	\$2.81	\$2.51	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40
RAIL PIECEBACK	180	56	39	6,010,034	1,913,486	1,326,363	33389.1	34169.4	34009.3	\$164,858	\$48,869	\$31,865	\$915.88	\$872.65	\$817.05	\$2.74	\$2.55	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40
RAIL COT PIECEBACK	980	1,233	469	52,713,856	64,139,397	18,097,796	53789.6	52019.0	38588.1	\$828,379	\$1,026,194	\$555,915	\$845.28	\$832.27	\$1,185.32	\$1.57	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60
AIR SMALL PARCELS	98,250	66,211	23,558	2,078,680	1,384,271	729,847	21.2	20.9	31.0	\$3,828,782	\$1,633,449	\$985,516	\$38.97	\$24.67	\$41.83	\$184.19	\$118.00	\$134.86	\$134.86	\$134.86	\$134.86	\$134.86	\$134.86
AIR FREIGHT	23,695	17,293	16,657	8,666,292	6,528,432	5,672,494	365.7	377.5	340.5	\$5,469,672	\$2,915,436	\$2,743,097	\$230.84	\$168.59	\$164.68	\$63.11	\$44.66	\$48.35	\$48.35	\$48.35	\$48.35	\$48.35	\$48.35
TOTAL	603,120	472,746	421,661	1,014,608,987	977,231,771	1,000,365,075	1682.3	2067.1	2372.5	\$66,613,352	\$50,809,392	\$48,591,541	\$110.45	\$107.48	\$115.24	\$6.57	\$5.20	\$4.85	\$4.85	\$4.85	\$4.85	\$4.85	\$4.85

ALL DOLLARS IN THIS TABLE HAVE BEEN CONVERTED TO FISCAL YEAR 1984 DOLLARS USING DEFATION FACTORS FROM THE DEPARTMENT OF COMMERCE

SUMMARY OF B/LA SHIPMENTS' BBL TRAFFIC BY MODE  
[Fiscal Years 1984, 1985, and 1986]

SHIPPING MODE	NUMBER OF BBL'S FY84	NUMBER OF BBL'S FY85	NUMBER OF BBL'S FY86	TOTAL WEIGHT SHIPPED FY84	TOTAL WEIGHT SHIPPED FY85	TOTAL WEIGHT SHIPPED FY86	AVG WGT SHIPPED FY84	AVG WGT SHIPPED FY85	AVG WGT SHIPPED FY86	TOTAL CHARGES FY84	TOTAL CHARGES FY85	TOTAL CHARGES FY86	AVG COST PER BBL FY84	AVG COST PER BBL FY85	AVG COST PER BBL FY86	AVG RATE PER CNT FY84	AVG RATE PER CNT FY85	AVG RATE PER CNT FY86
POSTAL	455,989	353,541	354,422	314,716,630	270,167,113	287,395,294	690.2	743.2	754.5	\$38,625,491	\$12,317,594	\$10,896,657	\$84.71	\$85.90	\$87.17	\$12.27	\$11.96	\$11.55
RAIL FREIGHT	24,026	24,412	24,516	630,423,495	633,098,872	707,163,281	26239.2	25933.9	28669.3	\$17,696,170	\$17,446,110	\$19,188,353	\$736.54	\$714.65	\$723.65	\$2.81	\$2.76	\$2.71
RAIL FREIGHT	180	56	39	6,010,034	1,913,486	1,326,363	33389.1	34169.4	34009.3	\$164,858	\$53,820	\$36,046	\$915.88	\$961.07	\$924.26	\$2.74	\$2.81	\$2.72
RAIL O/T FREIGHT	980	1,233	469	52,713,856	64,139,397	18,097,796	53789.6	52019.0	38588.1	\$828,379	\$1,130,170	\$628,863	\$845.28	\$916.60	\$1,340.86	\$1.57	\$1.76	\$3.47
AIR FREIGHT	98,250	66,211	23,558	2,078,680	1,384,271	729,847	21.2	20.9	31.0	\$3,828,782	\$1,798,953	\$1,114,837	\$38.97	\$27.17	\$47.32	\$184.19	\$129.96	\$152.56
AIR FREIGHT	23,695	17,293	16,657	8,666,292	6,528,632	5,672,494	365.7	377.5	340.5	\$5,469,672	\$3,210,833	\$3,103,051	\$230.84	\$185.67	\$186.29	\$63.11	\$49.18	\$54.70
TOTAL	603,120	472,746	421,661	1,014,608,987	977,231,771	1,000,395,075	1682.3	2067.1	2372.5	\$66,613,352	\$55,957,480	\$54,967,807	\$110.45	\$118.37	\$130.36	\$6.57	\$5.73	\$5.49

CHARGES ARE ACTUAL DOLLARS SPENT DURING FISCAL YEARS 1984, 1985, AND 1986

APPENDIX B

SUMMARY OF DEFENSE DEPOTS TRAFFIC BY MODE



SUMMARY DEFENSE DEPOSITS' TRAFFIC BY MODE  
[Comparison of Fiscal Year 1984, 1985, and 1986 in Fiscal Year 1984 Dollars]

SHIPPING MODE	SHIPPING DEPOTS	NUMBER OF BLS FY84	NUMBER OF BLS FY85	TOTAL WEIGHT SHIPPED FY84	TOTAL WEIGHT SHIPPED FY85	TOTAL WEIGHT SHIPPED FY86	AVG WGT SHIPPED FY84	AVG WGT SHIPPED FY85	AVG WGT SHIPPED FY86	TOTAL CHARGES FY84	TOTAL CHARGES FY85	TOTAL CHARGES FY86	AVG COST			AVG RATE			AVG RATE					
													PER BSL FY84	PER BSL FY85	PER BSL FY86	PER CWT FY84	PER CWT FY85	PER CWT FY86	PER CWT FY84	PER CWT FY85	PER CWT FY86			
MOTOR LTL	DORV	53,258	46,954	47,527,688	40,052,885	48,928,217	892.4	853.0	762.9	\$4,866,533	\$3,993,963	\$5,001,025	\$91.38	\$85.06	\$77.98	\$10.24	\$9.97	\$10.22	\$9.97	\$10.22	\$10.24	\$9.97	\$10.22	
	DDMP	84,790	86,884	79,281	54,438,305	49,106,171	636.9	626.6	619.4	\$6,497,420	\$5,866,659	\$4,737,648	\$76.63	\$67.52	\$59.76	\$12.03	\$10.78	\$9.64	\$10.78	\$12.03	\$10.78	\$9.64		
	DDCO	40,543	29,226	23,030,037	19,034,044	18,524,992	568.0	651.3	697.1	\$3,291,922	\$2,031,338	\$1,859,685	\$81.19	\$69.50	\$69.98	\$14.29	\$10.67	\$10.04	\$10.67	\$14.29	\$10.67	\$10.04		
	DDMT	143,264	96,983	93,475,822	69,876,408	65,352,442	652.5	720.7	765.1	\$12,000,726	\$7,971,185	\$6,658,799	\$83.77	\$82.19	\$77.96	\$12.84	\$11.40	\$10.19	\$12.84	\$11.40	\$10.19			
	DDCU	54,707	47,262	43,114,345	40,670,355	35,478,508	788.1	860.5	951.1	\$5,948,603	\$4,799,948	\$4,038,347	\$108.74	\$101.56	\$96.88	\$13.80	\$11.80	\$11.39	\$13.80	\$11.80	\$11.39			
	DDTC	79,427	56,232	53,570,129	46,075,096	50,004,964	674.5	819.4	872.2	\$6,020,387	\$4,681,283	\$5,017,141	\$75.80	\$83.25	\$87.51	\$11.24	\$10.16	\$10.03	\$11.24	\$10.16	\$10.03			
TOTAL													\$84.71	\$80.72	\$78.34	\$12.27	\$10.86	\$10.25						
MOTOR TRUCKLOAD	DORV	4,358	5,064	107,375,943	129,926,727	139,942,843	24638.8	25656.9	26103.9	\$2,836,710	\$3,466,308	\$3,337,170	\$650.92	\$684.50	\$622.49	\$2.64	\$2.67	\$2.39	\$2.67	\$2.64	\$2.67	\$2.39		
	DDMP	3,845	3,626	112,641,822	99,743,156	100,314,723	29295.7	27507.8	28052.2	\$2,356,997	\$1,921,733	\$2,086,625	\$613.00	\$529.99	\$583.51	\$2.09	\$1.93	\$2.08	\$2.09	\$1.93	\$2.08			
	DDCO	1,173	1,248	24,034,001	26,028,866	32,328,763	20489.3	20857.3	22977.1	\$890,854	\$905,932	\$1,014,911	\$759.47	\$725.91	\$721.33	\$3.71	\$3.48	\$3.14	\$3.71	\$3.48	\$3.14			
	DDMT	7,387	6,989	199,524,002	187,103,826	235,492,279	27010.2	26771.2	27601.1	\$5,710,150	\$4,866,542	\$5,986,160	\$773.00	\$696.31	\$701.61	\$2.86	\$2.60	\$2.55	\$2.86	\$2.60	\$2.55			
	DDCU	1,882	2,518	43,367,733	65,835,511	64,784,832	23043.4	26146.0	28653.2	\$2,313,249	\$1,948,204	\$1,789,687	\$1,229.14	\$773.71	\$791.55	\$5.33	\$2.96	\$2.77	\$5.33	\$2.96	\$2.77			
	DDTC	5,381	4,967	143,479,994	124,459,786	134,299,841	26664.2	25057.3	24967.4	\$5,588,210	\$2,732,348	\$2,747,934	\$666.83	\$550.10	\$510.86	\$2.50	\$2.20	\$2.04	\$2.50	\$2.20	\$2.04			
TOTAL													\$736.54	\$648.90	\$655.23	\$2.81	\$2.50	\$2.49						
AIR SMALL PARCEL	DORV	2,726	235	77,332	10,955	4,066	28.4	46.6	38.7	\$118,767	\$16,258	\$8,177	\$43.57	\$49.18	\$77.88	\$153.58	\$148.40	\$245.31	\$153.58	\$148.40	\$153.58	\$148.40	\$245.31	
	DDMP	27,031	12,807	483,770	278,647	11,079	17.9	21.8	15.2	\$1,651,057	\$292,810	\$60,629	\$61.08	\$22.86	\$83.28	\$341.29	\$105.08	\$547.24	\$341.29	\$105.08	\$341.29	\$105.08	\$547.24	
	DDCO	8,315	5,472	212,478	136,736	174,215	25.6	25.0	50.5	\$243,003	\$155,006	\$149,346	\$29.22	\$28.33	\$43.30	\$114.37	\$113.36	\$85.72	\$114.37	\$113.36	\$114.37	\$113.36	\$85.72	
	DDMT	21,393	8,835	511,342	260,559	205,694	23.9	29.5	30.9	\$604,312	\$232,937	\$337,508	\$28.25	\$26.37	\$52.10	\$118.18	\$99.40	\$168.38	\$118.18	\$99.40	\$118.18	\$99.40	\$168.38	
	DDCU	15,680	19,313	340,555	368,516	312,039	21.7	19.1	27.7	\$457,231	\$485,824	\$373,941	\$29.16	\$25.16	\$33.25	\$134.26	\$131.83	\$119.84	\$134.26	\$131.83	\$134.26	\$131.83	\$119.84	
	DDTC	23,105	19,549	453,203	328,858	22,754	19.6	16.8	16.5	\$754,412	\$450,615	\$47,075	\$32.65	\$23.05	\$34.03	\$166.46	\$137.02	\$206.88	\$166.46	\$137.02	\$166.46	\$137.02	\$206.88	
TOTAL													\$38.97	\$24.67	\$53.98	\$184.19	\$118.00	\$221.53						
AIR FREIGHT	DORV	2,702	2,206	914,395	697,219	924,199	338.4	316.1	308.9	\$765,388	\$402,965	\$480,234	\$283.27	\$192.67	\$160.51	\$83.70	\$57.80	\$51.96	\$83.70	\$57.80	\$83.70	\$57.80	\$51.96	
	DDMP	3,848	3,610	1,246,060	1,594,267	462,951	323.8	441.6	404.7	\$1,104,309	\$749,969	\$256,753	\$286.98	\$207.75	\$224.44	\$88.62	\$47.04	\$55.46	\$88.62	\$47.04	\$88.62	\$47.04	\$55.46	
	DDCO	4,916	3,249	2,300,375	1,372,291	1,503,725	467.9	422.4	360.7	\$1,274,569	\$545,026	\$613,490	\$259.27	\$167.75	\$147.16	\$35.41	\$39.72	\$40.80	\$35.41	\$39.72	\$35.41	\$39.72	\$40.80	
	DDMT	5,228	4,119	2,141,794	1,808,448	2,007,957	409.7	439.1	418.2	\$981,692	\$584,006	\$955,247	\$187.78	\$136.93	\$198.97	\$45.84	\$31.19	\$47.58	\$45.84	\$31.19	\$45.84	\$31.19	\$47.58	
	DDCU	3,679	2,968	952,608	763,515	649,032	258.9	257.2	214.9	\$578,137	\$419,629	\$360,103	\$157.15	\$141.38	\$119.24	\$60.69	\$54.96	\$55.48	\$60.69	\$54.96	\$60.69	\$54.96	\$55.48	
	DDTC	3,372	1,141	1,111,060	292,892	124,630	334.5	256.7	234.7	\$765,577	\$233,841	\$77,270	\$230.46	\$204.94	\$145.52	\$68.91	\$79.84	\$62.00	\$68.91	\$79.84	\$68.91	\$79.84	\$62.00	
TOTAL													\$230.84	\$168.59	\$165.97	\$63.11	\$44.66	\$52.22						

ALL DOLLARS IN THIS TABLE HAVE BEEN CONVERTED TO FISCAL YEAR 1984 DOLLARS USING DEFLATION FACTORS FROM THE DEPARTMENT OF COMMERCE

**SUMMARY DEFENSE DEPOTS' TRAFFIC BY MODE**  
(Comparison of Fiscal Years 1984, 1985, and 1986)

SHIPPING MODE	SHIPPING DEPOTS	NUMBER OF BLS OF			TOTAL WEIGHT SHIPPED			AVG WGT SHIPPED			TOTAL CHARGES			TOTAL CHARGES			AVG COST PER BSL			AVG COST PER BSL			AVG RATE PER CNT			AVG RATE PER CNT		
		FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY86	FY84	FY85	FY86
MOTOR LTL	DDRV	53,258	46,954	64,131	47,527,689	40,052,885	48,928,217	892.4	853.0	762.9	44,866,533	44,398,638	55,657,268	891.38	893.68	898.21	810.24	810.98	811.54	810.24	810.98	811.54	810.24	810.98	811.54	810.24	810.98	811.54
	DDMP	84,790	86,884	79,281	53,998,609	54,438,305	49,106,171	636.9	626.6	619.4	64,497,420	64,461,078	55,359,330	876.63	874.36	867.40	812.03	811.87	810.91	812.03	811.87	810.91	812.03	811.87	810.91	812.03	811.87	810.91
	DDCO	40,543	29,226	26,576	23,030,037	19,034,064	18,524,992	568.0	651.3	697.1	33,291,822	27,237,156	32,103,716	881.19	876.53	879.16	814.29	811.75	811.36	814.29	811.75	811.36	814.29	811.75	811.36	814.29	811.75	811.36
	DDMT	143,264	96,983	85,417	93,475,822	69,896,408	65,352,442	652.5	720.7	765.1	12,000,726	88,778,83	87,532,578	881.79	879.52	888.19	812.84	812.56	811.53	812.84	812.56	811.53	812.84	812.56	811.53	812.84	812.56	811.53
	DDDU	54,707	47,262	41,658	45,114,345	40,670,355	35,478,508	788.1	860.5	851.1	55,948,603	55,286,266	44,568,266	8108.74	8111.85	8109.59	813.80	813.00	812.88	813.80	813.00	812.88	813.80	813.00	812.88	813.80	813.00	812.88
	DDTC	79,427	56,232	57,332	53,570,129	46,075,096	50,004,964	674.5	819.4	872.2	46,020,387	45,155,598	55,675,499	873.80	891.68	898.99	811.24	811.19	811.35	811.24	811.19	811.35	811.24	811.19	811.35	811.24	811.19	811.35
	TOTAL	455,989	365,541	354,422	314,716,630	270,167,113	267,395,294	690.2	743.2	761.3	338,625,491	332,317,594	430,896,657	884.71	888.90	888.62	812.27	811.96	811.60	812.27	811.96	811.60	812.27	811.96	811.60	812.27	811.96	811.60
MOTOR TRUCK/LOAD	DDRV	4,358	5,044	5,361	107,375,943	129,926,727	139,942,843	24638.8	25656.9	26103.9	92,836,710	93,817,520	93,775,079	9650.92	9753.85	9704.17	92.84	92.94	92.70	92.84	92.94	92.70	92.84	92.94	92.70	92.84	92.94	92.70
	DDMP	3,845	3,626	3,576	112,641,822	99,743,156	99,743,156	29295.7	27507.8	28052.2	92,356,997	92,116,446	92,360,435	9613.00	9583.69	9600.08	92.09	92.12	92.35	92.09	92.12	92.35	92.09	92.12	92.35	92.09	92.12	92.35
	DDCO	1,173	1,248	1,407	24,034,001	26,028,866	32,328,763	20489.3	20857.3	22977.1	8890,854	8997,723	91,148,089	9759.47	9799.46	9815.98	93.71	93.83	93.55	93.71	93.83	93.55	93.71	93.83	93.55	93.71	93.83	93.55
	DDMT	7,387	6,989	8,532	199,524,002	187,103,826	235,492,279	27010.2	26771.2	27601.1	93,710,130	93,359,628	96,771,674	9773.00	9766.87	9793.68	92.86	92.86	92.88	92.86	92.86	92.88	92.86	92.86	92.88	92.86	92.86	92.88
	DDDU	1,882	2,518	2,261	43,367,733	65,835,511	64,784,832	23043.4	26146.0	28653.2	92,313,249	92,145,399	92,024,533	91,229.14	9852.10	9895.42	93.33	93.26	93.13	93.33	93.26	93.13	93.33	93.26	93.13	93.33	93.26	93.13
	DDTC	5,381	4,967	5,379	143,479,994	124,459,786	134,299,841	26664.2	25057.3	24967.4	93,588,210	93,009,194	92,024,533	9666.83	9605.84	9577.90	92.50	92.42	92.31	92.50	92.42	92.31	92.50	92.42	92.31	92.50	92.42	92.31
	TOTAL	24,026	24,412	26,516	630,423,495	633,098,872	707,163,281	26239.2	25933.9	26392.5	917,696,170	917,446,110	919,188,353	9736.34	9714.65	9741.21	92.81	92.76	92.82	92.81	92.76	92.82	92.81	92.76	92.82	92.81	92.76	92.82
AIR SMALL PARCEL	DDRV	2,726	235	105	77,332	10,955	4,066	28.4	46.6	38.7	918,767	917,905	99,250	943.57	976.19	988.10	915.38	916.44	927.50	915.38	916.44	927.50	915.38	916.44	927.50	915.38	916.44	927.50
	DDMP	27,031	12,807	728	483,770	278,447	11,079	17.9	21.8	15.2	91,631,037	932,478	968,585	961.08	925.18	94.21	941.29	915.73	915.05	941.29	915.73	915.05	941.29	915.73	915.05	941.29	915.73	915.05
	DDCO	8,315	5,472	3,449	212,478	136,736	174,215	25.6	25.0	30.5	9243,003	9170,712	9168,944	929.22	931.20	948.98	914.37	914.85	926.97	914.37	914.85	926.97	914.37	914.85	926.97	914.37	914.85	926.97
	DDMT	21,393	8,835	6,447	511,342	260,559	205,494	23.9	29.5	30.9	9604,312	9756,538	9381,796	928.25	929.04	938.94	918.18	918.46	9190.48	918.18	918.46	9190.48	918.18	918.46	9190.48	918.18	918.46	9190.48
	DDDU	15,680	19,313	11,246	340,585	368,516	312,039	21.7	19.1	27.7	9457,231	9535,048	9423,010	929.16	927.70	937.61	9134.26	9145.19	9135.56	9134.26	9145.19	9135.56	9134.26	9145.19	9135.56	9134.26	9145.19	9135.56
	DDTC	25,105	19,549	1,383	453,203	328,858	22,754	19.6	16.8	16.5	9754,412	9496,272	953,252	932.65	925.39	938.50	9166.46	9150.91	9234.03	9166.46	9150.91	9234.03	9166.46	9150.91	9234.03	9166.46	9150.91	9234.03
	TOTAL	98,250	66,211	23,558	2,078,680	1,384,271	729,847	21.2	20.9	29.9	93,828,782	91,798,953	91,114,837	938.97	927.17	961.06	9184.19	9129.96	9250.60	9184.19	9129.96	9250.60	9184.19	9129.96	9250.60	9184.19	9129.96	9250.60
AIR FREIGHT	DDRV	2,702	2,206	2,992	914,395	697,219	924,199	338.4	316.1	308.9	9765,388	9443,794	9543,251	9283.27	9201.18	9181.57	983.70	963.65	958.78	983.70	963.65	958.78	983.70	963.65	958.78	983.70	963.65	958.78
	DDMP	3,848	3,610	1,144	1,246,060	1,594,267	462,951	323.8	441.6	404.7	91,104,309	9825,957	9290,445	9286.98	9238.80	9253.89	988.62	951.81	962.74	988.62	951.81	962.74	988.62	951.81	962.74	988.62	951.81	962.74
	DDCO	4,916	3,249	4,169	2,300,375	1,372,291	1,503,725	467.9	422.4	360.7	91,274,569	9600,249	9693,993	9259.27	9184.75	9166.47	955.41	943.74	946.15	955.41	943.74	946.15	955.41	943.74	946.15	955.41	943.74	946.15
	DDMT	5,228	4,119	4,801	2,141,794	1,808,448	2,007,957	409.7	439.1	418.2	9981,692	9621,152	91,080,596	9187.78	9150.80	9225.08	945.84	924.35	953.82	945.84	924.35	953.82	945.84	924.35	953.82	945.84	924.35	953.82
	DDDU	3,679	2,968	3,020	952,608	763,515	649,032	238.9	257.2	214.9	9578,137	9462,147	9407,356	9157.15	9155.71	9134.89	960.69	960.53	962.76	960.69	960.53	962.76	960.69	960.53	962.76	960.69	960.53	962.76
	DDTC	3,322	1,141	531	1,111,060	292,892	124,630	334.5	256.7	234.7	9765,577	9257,534	987,410	9230.46	9225.71	9164.61	968.91	967.93	970.14	968.91	967.93	970.14	968.91	967.93	970.14	968.91	967.93	970.14
	TOTAL	23,695	17,293	16,657	8,666,292	6,528,632	5,672,494	345.7	377.5	323.7	95,489,672	93,210,833	93,103,051	9230.84	9185.67	9187.75	963.11	949.18	959.07	963.11	949.18	959.07	963.11	949.18	959.07	963.11	949.18	959.07

APPENDIX C

SUMMARY OF DLA SHIPMENTS GBL TRAFFIC BY MODE

(SMALL DOLLAR SHIPMENT COMPARISON)

## FISCAL YEAR 1984

SUMMARY OF DLA SHIPMENTS' SBL TRAFFIC BY MODE  
(Shipments Inc \$50.00 and over \$50.00)

SHIPPING MODE	NUMBER		TOTAL WEIGHT		AVG WGT		TOTAL		AVG COST		AVG RATE	
	OF SBLs	OF SBLs	SHIPPED	SHIPPED	SHIPPED	SHIPPED	CHARGES	CHARGES	PER SBL	PER SBL	PER SBL	PER SBL
	INC \$50	EXC \$50	INC \$50	EXC \$50	INC \$50	EXC \$50	INC \$50	EXC \$50	INC \$50	EXC \$50	INC \$50	EXC \$50
MOTOR LTL	334,422	172,668	267,395,294	236,979,361	754.5	1372.5	\$30,896,657	\$24,619,713	\$87.17	\$142.58	\$11.55	\$10.39
MOTOR TRUCKLOAD	26,516	26,509	767,163,281	707,000,406	26669.3	26670.2	\$19,188,353	\$19,188,197	\$723.65	\$723.84	\$2.71	\$2.71
RAIL P166YBACK	39	39	1,326,363	1,326,363	34009.3	34009.3	\$36,046	\$36,046	\$924.26	\$924.26	\$2.72	\$2.72
RAIL D/T P166YBACK	489	469	18,097,796	18,097,796	38588.1	38588.1	\$628,863	\$628,863	\$1,340.86	\$1,340.86	\$3.47	\$3.47
AIR SMALL PARCELS	23,558	9,606	729,847	409,583	31.0	41.6	\$1,114,837	\$710,713	\$47.32	\$73.88	\$152.56	\$173.52
AIR FREIGHT	16,657	15,694	5,672,494	5,554,499	340.5	353.9	\$3,103,051	\$3,061,271	\$186.29	\$195.06	\$54.70	\$55.11
TOTAL	421,641	224,985	1,000,385,075	969,368,008	2372.5	4308.6	\$54,967,807	\$48,244,803	\$130.36	\$214.44	\$5.49	\$4.98

INC \$50-INCLUDES ALL SHIPMENTS UNDER \$50

EXC \$50-EXCLUDES ALL SHIPMENTS UNDER \$50

APPENDIX D

SUMMARY OF DEFENSE DEPOTS TRAFFIC BY MODE

(SMALL DOLLAR SHIPMENT COMPARISON)

FISCAL YEAR 1986

SUMMARY DEFENSE DEPOSITS' TRAFFIC BY MODE  
(Shipments inc \$50 and over \$50)

SHIPPING MODE	SHIPPING DEPOSITS	NUMBER OF GBLS INC \$50 EIC \$50	NUMBER OF GBLS INC \$50 EIC \$50	TOTAL WEIGHT SHIPPED INC \$50 EIC \$50	TOTAL WEIGHT SHIPPED INC \$50 EIC \$50	AVG WGT SHIPPED INC \$50 EIC \$50	AVG WGT SHIPPED INC \$50 EIC \$50	TOTAL CHARGES INC \$50	TOTAL CHARGES INC \$50	AVG COST PER GBL INC \$50 EIC \$50	AVG COST PER GBL INC \$50 EIC \$50	AVG RATE PER CMT INC \$50 EIC \$50
MOTOR LTL	DDRV	64,131	33,172	48,928,217	43,808,440	762.9	1320.6	\$5,657,268	\$4,444,778	\$88.21	\$133.99	\$11.56
	DMP	79,281	33,585	49,106,171	40,323,387	619.4	1200.6	\$5,359,330	\$3,935,173	\$67.60	\$117.17	\$10.91
	DDCO	26,376	10,367	18,524,992	15,952,494	697.1	1538.8	\$2,103,716	\$1,564,038	\$79.16	\$150.87	\$11.36
	DDMT	85,417	39,329	65,352,442	58,075,759	765.1	1476.7	\$7,532,578	\$5,837,595	\$88.19	\$148.43	\$11.53
	DDOU	41,685	24,418	35,478,508	33,722,903	851.1	1381.1	\$4,568,266	\$3,905,829	\$109.59	\$159.96	\$12.88
	DDTC	57,332	31,797	50,004,964	45,096,378	872.2	1418.3	\$5,675,499	\$4,932,300	\$98.99	\$155.12	\$11.35
	TOTAL	354,422	172,668	267,395,294	236,979,361	761.3	1389.4	\$30,896,657	\$24,619,713	\$88.62	\$144.26	\$11.60
	DDRV	5,361	5,360	139,942,843	139,921,653	26103.9	26104.8	\$3,775,079	\$3,775,051	\$704.17	\$704.30	\$2.70
	DMP	3,576	3,574	100,314,723	100,270,148	28052.2	28058.0	\$2,360,335	\$2,360,382	\$660.08	\$660.43	\$2.35
	DDCO	1,407	1,407	32,328,763	32,328,763	22977.1	22977.1	\$1,148,089	\$1,148,089	\$815.98	\$815.98	\$3.55
MOTOR TRUCKLOAD	DDMT	8,532	8,532	235,492,279	235,492,279	27601.1	27601.1	\$6,771,674	\$6,771,674	\$793.68	\$793.68	\$2.88
	DDOU	2,261	2,261	64,784,832	64,784,832	28653.2	28653.2	\$2,024,553	\$2,024,553	\$895.42	\$895.42	\$3.13
	DDTC	5,379	5,375	134,299,841	134,193,731	24967.4	24966.3	\$3,108,523	\$3,108,448	\$577.90	\$578.32	\$2.31
	TOTAL	26,516	26,509	707,163,281	706,991,406	26392.5	26393.4	\$19,188,353	\$19,188,197	\$741.21	\$741.36	\$2.82
	DDRV	105	81	4,066	3,826	38.7	47.2	\$9,250	\$8,351	\$88.10	\$103.10	\$227.50
	DMP	728	415	11,079	9,346	15.2	22.5	\$68,585	\$58,155	\$94.21	\$140.13	\$619.05
	DDCO	3,449	1,588	174,215	83,276	50.5	52.4	\$168,944	\$99,973	\$48.98	\$62.96	\$120.05
	DDMT	6,647	4,323	205,694	138,645	30.9	32.1	\$391,796	\$312,034	\$58.94	\$72.18	\$190.48
	DDOU	11,246	2,835	312,039	160,300	27.7	56.5	\$423,010	\$204,312	\$37.61	\$72.07	\$135.56
	DDTC	1,383	364	22,754	14,190	16.5	39.0	\$53,252	\$27,888	\$38.50	\$76.62	\$234.03
AIR FREIGHT	TOTAL	23,558	9,606	729,847	409,583	29.9	41.6	\$1,114,837	\$710,713	\$61.06	\$87.84	\$250.60
	DDRV	2,992	2,909	924,199	915,564	308.9	314.7	\$543,251	\$539,236	\$181.57	\$185.37	\$58.78
	DMP	1,144	1,029	462,951	447,634	404.7	435.0	\$290,445	\$285,675	\$253.89	\$277.62	\$62.74
	DDCO	4,169	3,793	1,503,725	1,459,367	360.7	384.8	\$693,993	\$677,490	\$166.47	\$178.62	\$46.15
	DDMT	4,801	4,552	2,007,957	1,974,900	418.2	433.9	\$1,080,596	\$1,070,570	\$253.08	\$235.19	\$53.82
	DDOU	3,020	2,903	649,032	634,934	214.9	218.7	\$407,356	\$401,095	\$134.89	\$138.44	\$62.76
	DDTC	531	508	124,630	121,900	234.7	240.0	\$87,410	\$86,405	\$164.61	\$170.09	\$70.14
	TOTAL	16,657	15,694	5,672,494	5,554,499	323.7	337.9	\$3,103,051	\$3,061,271	\$187.75	\$197.56	\$59.07
	DDRV	2,992	2,909	924,199	915,564	308.9	314.7	\$543,251	\$539,236	\$181.57	\$185.37	\$58.78
	DMP	1,144	1,029	462,951	447,634	404.7	435.0	\$290,445	\$285,675	\$253.89	\$277.62	\$62.74
	DDCO	4,169	3,793	1,503,725	1,459,367	360.7	384.8	\$693,993	\$677,490	\$166.47	\$178.62	\$46.15

INC \$50-INCLUDES ALL SHIPMENTS UNDER \$50  
EIC \$50-EXCLUDES ALL SHIPMENTS UNDER \$50

END

DATE

FILMED

8-88

DTIC